```
                        * CUSTOM I/O DRIVER PACKAGE
                        *
                        * CONTAINS ALL TERMINAL I/O DRIVERS AND INTERRUPT
                        * HANDLING INFORMATION.

                        * SYSTEM EQUATES

                C700    CHPR    EQU     $C700       CHANGE PROCESS ROUTINE


                        ************************************************
                        *                                              *
                        * I/O ROUTINE VECTOR TABLE                     *
                        *                                              *
D3E7                    *       ORG     $D3E7       TABLE STARTS AT $D3E7    *
                        *                                              *
D3E7 D3CB               IHNDLR  FDB     IHND        IRQ INTERRUPT HANDLER    *
D3E9 DFC2               SWIVEC  FDB     $DFC2       SWI3 VECTOR LOCATION     *
D3EB DFC8               IRQVEC  FDB     $DFC8       IRQ VECTOR LOCATION      *
D3ED D3C4               TMOFF   FDB     TOFF        TIMER OFF ROUTINE        *
D3EF D3BD               TMON    FDB     TON         TIMER ON ROUTINE         *
D3F1 D3A7               TMINT   FDB     TINT        TIMER INITIALIZE ROUTINE *
D3F3 F814               MONITR  FDB     $F814       MONITOR RETURN ADDRESS   *
D3F5 D370               TINIT   FDB     INIT        TERMINAL INITIALIZATION  *
D3F7 D39C               STAT    FDB     STATUS      CHECK TERMINAL STATUS    *
D3F9 D38B               OUTCH   FDB     OUTPUT      TERMINAL CHAR OUTPUT     *
D3FB D37D               INCH    FDB     INPUT       TERMINAL CHAR INPUT      *
                        *                                              *
                        ************************************************


                        * ACTUAL ROUTINES START HERE
                        ******************************

D370                    *       ORG     $D370

                        * TERMINAL INITIALIZE ROUTINE

D370 86   13            INIT    LDA     #$13        RESET ACIA
D372 A7   9F D3E5               STA     [ACIAC]
D376 86   11                    LDA     #$11        CONFIGURE ACIA
D378 A7   9F D3E5               STA     [ACIAC]
D37C 39                         RTS

                        * TERMINAL INPUT CHARACTER ROUTINE

D37D A6   9F D3E5       INPUT   LDA     [ACIAC]     GET STATUS
D381 84   01                    ANDA    #$01        CHARACTER PRESENT?
D383 27   F8                    BEQ     INPUT       LOOP IF NOT
D385 A6   9F D3E3               LDA     [ACIAD]     GET THE CHARACTER
D389 84   7F                    ANDA    #$7F        STRIP PARITY
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                        * TERMINAL OUTPUT CHARACTER ROUTINE

D38B 34   02       OUTPUT  PSHS   A          SAVE CHARACTER
D38D A6   9F D3E5  OUTPU2  LDA    [ACIAC]    TRANSMIT BUFFER EMPTY?
D391 84   02               ANDA   #$02
D393 27   F8               BEQ    OUTPU2     WAIT IF NOT
D395 35   02               PULS   A          RESTORE CHARACTER
D397 A7   9F D3E3          STA    [ACIAD]    OUTPUT IT
D39B 39                    RTS

                        * TERMINAL STATUS CHECK (CHECK FOR CHARACTER HIT)

D39C 34   02       STATUS  PSHS   A          SAVE A REG.
D39E A6   9F D3E5          LDA    [ACIAC]    GET STATUS
D3A2 84   01               ANDA   #$01       CHECK FOR CHARACTER
D3A4 35   02               PULS   A          RESTORE A REG.
D3A6 39                    RTS

                        * TIMER INITIALIZE ROUTINE

D3A7 BE   D3E1     TINT    LDX    TMPIA      GET PIA ADDRESS
D3AA 86   FF               LDA    #$FF
D3AC A7   84               STA    0,X
D3AE 86   3C               LDA    #$3C
D3B0 A7   01               STA    1,X
D3B2 86   8F               LDA    #$8F
D3B4 A7   84               STA    0,X
D3B6 A6   84               LDA    0,X
D3B8 86   3D               LDA    #$3D
D3BA A7   01               STA    1,X
D3BC 39                    RTS

                        * TIMER ON ROUTINE

D3BD 86   04       TON     LDA    #$04       TURN ON TIMER
D3BF A7   9F D3E1          STA    [TMPIA]
D3C3 39                    RTS

                        * TIMER OFF ROUTINE

D3C4 86   8F       TOFF    LDA    #$8F       TURN OFF TIMER
D3C6 A7   9F D3E1          STA    [TMPIA]
D3CA 39                    RTS

                        * IRQ INTERRUPT HANDLER ROUTINE

D3CB A6   9F D3E1  IHND    LDA    [TMPIA]    RESET INTERRUPTS
D3CF 7E   C700             JMP    CHPR       GO TO SPOOLER
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                    * ACIA AND PIA ADDRESSES FOR SUPPLIED ROUTINES

D3E1                        ORG     $D3E1

D3E1 E012           TMPIA   FDB     $E012       TIMER PIA ADDRESS
D3E3 E005           ACIAD   FDB     $E005       ACIA DATA REG. ADR.
D3E5 E004           ACIAC   FDB     $E004       ACIA CONTROL REG. ADR.

                    * END STATEMENT HAS FLEX TRANSFER ADDRESS!

                            END     $CD00
```